

EXPANDABLE IMPLANT DEVICES FOR FILTERING
BLOOD FLOW FROM ATRIAL APPENDAGES

Abstract of the Disclosure

Implant devices for filtering blood flowing
5 through the ostium of an atrial appendage have component
structures one or more of which are expandable. Devices
with component structures in their unexpanded state have
a compact size suitable for intra-cutaneous delivery to
an atrial appendage situs. The expandable component
10 structures are expanded in situ to deploy the devices. A
device may have sufficiently short axial length so that
most or almost all of the device length may fit within
the ostium region. An expandable component structure in
the device may include a blood-permeable filter element.
15 The device may be deployed so that this component
structure covers the ostium so as to direct the blood
flow to pass through the filter element. The filter
elements used in the devices may have hole size
distributions selected to filter out harmful-size emboli.
20 The filter elements may be embedded in elastic material
so that hole-size distributions remain substantially
unaffected by expansion of the device structures.
Anchors attached to a component structure engage tissue
surrounding the device and maintain the devices in
25 position. The anchors may include inflatable anchors
which engage interior walls of the atrial appendage.